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LUEDEKA, NEELY & GRAHAM, P.C. P O BOX 1871 KNOXVILLE, TN 37901			BORLINGHAUS, JASON M	
			ART UNIT	PAPER NUMBER
			3693	

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/777,987

Applicant(s)

SPENCER ET AL.

Examiner

Jason M. Borlinghaus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-102 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-102 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/13/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 1 - 100 and 102** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "where possible" in Claim 1 and the term "to the extent possible" in Claim 102 is a relative term that renders the claim indefinite. Such terminology is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention.

**Claims 2 – 100** are rejected based upon their dependency from Claim 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1 – 2, 61 – 62, 81 – 82 and 101 - 102** are rejected under 35 U.S.C.

103(a) as being unpatentable over Kalmus (US Patent 4,674,044) in view of Bergman (Bergman, Lars, Brunekreeft, Gert, Doyle, Chris, Von der Fehr, Nils-Henrik M, Newbery, David M, Pollitt, Michael and Regibeau, Pierre. *A European Market for Electricity: Monitoring European Deregulation 2*. Center for Business and Policy Studies. October 1999. p. 70) and Disclosed Prior Art (applicant's specification, p. 1).

**Regarding Claim 1**, Kalmus discloses a method of trading financial instruments (securities), using a trading system computer apparatus (CPU). (see 10, figure 1);

a plurality of client computer apparatus (branch order entry clerk) located physically remote from each other (at various branch offices) and physically remote from the trading system computer apparatus (CPU). (see 27, figure 1);

a telecommunications network (communication path) interlinking the trading system computer apparatus (CPU) and the plurality of client computer apparatus (branch order entry clerk). (see 25, figure 1);

the method comprising the steps of:

- (a) using at least one of the client computer apparatus (brokerage firm's account executives computer system) to send (communicate) to the trading system computer apparatus (CPU) via the

telecommunications network (communication path) a plurality of offers for sale of financial instruments (orders). (see col. 4, line 51 – col. 5, line 5);

(b) using at least one of the client computer apparatus (brokerage firm's account executives computer system) to send (communicate) to the trading system computer apparatus (CPU) via the telecommunications network (communication path) a plurality of bids for purchase of financial instruments (orders). (see col. 4, line 51 – col. 5, line 5);

(c) using the trading system computer apparatus to:

- establish a continuous order entry period (real-time submission) during which offers for sale and bids for purchase (orders) can be submitted to the trading system computer apparatus (CPU). (see col. 4, line 51 – col. 5, line 5);
- compare (processing) all offers for sale and bids (orders) for purchase made in a continuous order entry period (real-time order inflow). (see col. 5, line 31 – 45);
- to record for each order at least one benchmark trading rate (limit order price) representing a price at which transactions involving matched offers for sale and bids for purchase are executed without review (automatically without human intervention) of said price by

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traders that submitted the matched offers for sale and bids for purchase. (see col. 2, line 64 – col. 3, line 6; col. 10, lines 23 – 35);

- to make available electronically via the telecommunications network (communication path) information regarding the offers and/or bids (orders) which have been executed. (see col. 5, line 22 – 30);
- such information for each executed pair of offer and bid (orders) being sent only to the traders (computer for customers of that brokerage house or reported to the appropriate other institution) who made (submitted) the executed offer and bid (orders). (see col. 5, line 22 – 30); and
- to make available electronically (via customer account processor) information regarding trades (trade records). (see col. 3, line 55 – col. 4, line 6).

Kalmus does not teach underlined claim limitations - a method comprising the steps of:

(c) using the trading system computer apparatus to:

- establish a succession of time limited order entry periods during which offers for sale and bids for purchase can be submitted to the trading system computer apparatus;
- compare all offers for sale and bids for purchase made in a single order entry period at the end of the order entry period;

- to match where possible the compared offers for sale and bids for purchase;
- to record for each order entry period at least one benchmark trading rate representing a price at which transactions involving matched offers for sale and bids for purchase are executed without review of said price by traders that submitted the matched offers for sale and bids for purchase; and
- to make available electronically via the telecommunications network information regarding the offers and/or bids which have been matched, such information for each matched pair of offer and bid being sent only to the traders who made the matched offer and bid and such information including the identity of traders responsible for each matched pair of offer and bid and the benchmark trading rate set for the transaction.

Trading, matching or selling items in a succession of time limited periods is old and well known in the art of marketplace and auction management, as evidenced by Bergman which states "Electricity is a commodity where demand and supply need to be balanced continuously. Conventional markets have trading periods that are discrete, and during which trades are done and supply and demand are equalized. Actual electricity markets typically operate in 30 minute or one hour discrete blocks with zonal pricing according to the location of buyers and sellers on the system." (see p. 70). It would have been obvious to one of ordinary skill in the art at the time the invention was

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made to have modified Kalmus by incorporating a succession of time limited periods, as disclosed by Bergman, to ensure supply and demand are equalized.

Trading, matching or selling items at the end or close of a period or round is well known in the art of marketplace and auction management. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus and Bergman by incorporating the ability of comparing orders submitted during a period, as disclosed by Bergman, at the end of the period, as this would ensure supply and demand are equalized, as suggested by Bergman.

Matching where possible offers for sale and bids for purchase is old and well known in the art of financial transactions and investment management, as evidenced by Disclosed Prior Art which states "The broker receive buying orders and selling orders and will match buyers to sellers at a price agreed between the buyer and seller." (see p. 1). It would have been obvious to one with ordinary skill in the art at the time the invention was made to have modified Kalmus and Bergman by incorporating the ability to match offers for sale and bids for purchase, as disclosed by Disclosed Prior Art, to ensure supply and demand are equalized.

Recording and/or disclosure of information related to a trade, transaction and/or sale is old and well known in the art of sales and investment transactions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus, Bergman and Disclosed Prior Art by incorporating the ability to make information related to the trade, whether executed electronically, as disclosed by Kalmus, or executed manually, as disclosed by Disclosed Prior Art, in the information



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disclosed by the system as trade records, as disclosed by Kalmus, and to include any information in said records communicated by the system as desired by the inventor, such as the identity of the trader that matched the bids and offers and/or the before-mentioned benchmark rate. *In re Kuhle*, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

**Regarding Claim 2**, Kalmus discloses a method:

- wherein each offer and each bid (order) specifies a financial value (price particulars). (see col. 4, line 51 – col. 5, line 5).

Kalmus does not teach underlined claim limitations a method:

- wherein each offer and each bid specifies a financial value and the trading system computer apparatus when matching offers and bids initially attempts for each offer to find a bid which is of exactly the same financial value and individually attempts for each bid to find an offer which is of exactly the same financial value.

Disclosed Prior Art discloses a method:

- wherein the trading system computer apparatus (broker) when matching offers and bids (orders) initially attempts for each offer to find a bid which is of exactly the same financial value (price agreed upon) and individually attempts for each bid to find an offer which is of exactly the same financial value (price agreed upon). (see p. 1).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to have modified Kalmus, Bergman and Disclosed Prior Art by

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incorporating the ability to match offers for sale and bids for purchase based upon financial value, as disclosed by Disclosed Prior Art, to provide a basis for matching bids and offers, and a metric by which to ensure supply and demand are equalized.

**Regarding Claims 61 – 62 and 81 – 82,** Kalmus discloses a method wherein:

- use of a computer as client as client computer apparatus in a computerized trading system operated to process trades in financial instruments. (see col. 3, line 55 – col. 5, line 45); and
- use of one or more computers as a trading computer apparatus in a computerized trading system operated to process trades in financial instruments. (see col. 3, line 55 – col. 5, line 45).

Prior art reference(s) do not teach underlined claim limitations – a method wherein:

- use of a personal computer as client as client computer apparatus in a computerized trading system operated to process trades in financial instruments; and
- use of one or more servers as a trading computer apparatus in a computerized trading system operated to process trades in financial instruments. (see col. 3, line 55 – col. 5, line 45).

Utilization of personal computers and/or servers for a wide array of computation and/or processing activities is old and well known in the art of computer systems and information technology. It would have been obvious to one of ordinary skill at the time the invention was made to have modified Kalmus, Bergman and Disclosed Prior Art by

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incorporating the use of a personal computer, as is old and well known, for the processing of financial instruments, allowing for automation of a manual process.

**Regarding Claims 101**, Kalmus discloses a method of trading financial instruments, comprising:

- (a) transmitting bids and offers (orders) for financial instruments from a plurality of client computer apparatus (branch order entry clerk) to a trading system computer apparatus (CPU) via a telecommunications network (communication path), said bids and offers specifying quantities (number of shares in market order) but not specifying prices (as market orders are conducted at market prevailing price). (see figure 1; col. 2, line 55 – col. 3, line 13; col. 4, line 51 – col. 5, line 5);
- (b) establishing an order entry period during which bids and offers (orders) can be submitted (communicated) to the trading system computer apparatus (CPU). (see col. 4, line 51 – col. 5, line 5);
- (c) processing the bids and offers submitted to generate matched bids and offers. (see col. 5, lines 31 –45);
- (d) executing transactions involving the matched bids and offers at a price without review (automatically without human intervention) of said price by traders that submitted the bids and offers (as in a market order). (see col. 2, line 64 – col. 3, line 6; col. 10, lines 23 – 35); and

- (e) transmitting (communicating) information regarding the bids and offers which have been matched to the plurality of client computer apparatus. (see col. 3, line 55 – col. 4, line 6).

Kalmus does not teach underlined claim limitations – a method comprising:

- (b) establishing a succession of time limited order entry periods during which bids and offers can be submitted to the trading system computer apparatus; and
- (c) processing the bids and offers submitted during a single order entry period at the end of the order entry period to generate matched bids and offers.

Trading, matching or selling items in a succession of time limited periods is old and well known in the art of marketplace and auction management, as evidenced by Bergman which states “Electricity is a commodity where demand and supply need to be balanced continuously. Conventional markets have trading periods that are discrete, and during which trades are done and supply and demand are equalized. Actual electricity markets typically operate in 30 minute or one hour discrete blocks with zonal pricing according to the location of buyers and sellers on the system.” (see p. 70). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus by incorporating a succession of time limited periods, as disclosed by Bergman, to ensure supply and demand are equalized.

Trading, matching or selling items at the end or close of a period or round is well known in the art of marketplace and auction management. It would have been obvious

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to one of ordinary skill in the art at the time the invention was made to have modified Kalmus and Bergman by incorporating the ability of comparing orders submitted during a period, as disclosed by Bergman, at the end of the period, as this would ensure supply and demand are equalized, as suggested by Bergman:

**Regarding Claim 102**, Claim 102 recites similar limitations and/or would have been obvious based upon Claim 101 rejected above, and is therefore rejected using the same art and rationale as applied in the rejection of Claims 101.

As for additional and/or differing claim limitations, Kalmus discloses a method wherein:

- (i) a first order and another order having the an indicated quantity (number of shares) and indicated additional conditions (limit order pricing). (see col. 5, lines 46 – 61);

Kalmus does not disclose underlined claim limitations – a method wherein:

- (i) attempting to match a first order with another order having the same quantity and the same additional conditions as the first order,
- (ii) if no other order is identified that exactly matches the first order in terms of quantity and additional conditions, attempting to match the first order with another order having the same quantity as the first order, and
- (iii) if no other order is identified that exactly matches the first order in terms of quantity, attempting to match the first order sequentially

with other orders to the extent possible given conditions specified  
for the first order and the other orders.

Matching rules and priority rules, such as matching orders based upon quantity and/or additional conditions, such as price, is old and well known in the art of marketplace management and order/purchasing fulfillment systems. For example, Bergman discloses matching quantity in order that demand and supply is equalized (see p. 70), while Disclosed Prior Art discloses matching based upon price (see p. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus to allow for any prioritizing of the match criteria, such as quantity, as disclosed by Bergman, or additional conditions, such as disclosed by Disclosed Prior Art, that the inventor desired. *In re Kuhle*, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

Furthermore, matching submitted orders and/or requests as close as possible is old and well known in the art of marketplaces and order fulfillment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus, Bergman and Disclosed Prior by incorporating the matching of submitted orders as closely as possible, as is old and well known, for such is conventional and/or standard in the art.

**Claims 5 - 6, 65 – 66 and 85 – 86** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman and Disclosed Prior Art, as applied in Claims 1 – 2

above, and in further view of Spence (Spence, Donald. *Introduction to Futures and Options*. Woodhead Publishing Limited. 1997. pp. 55 – 56).

**Regarding Claims 5 – 6**, Kalmus discloses a method wherein:

- each offer for sale (order) contains information regarding a financial value (price particulars) of each financial instrument and other information (and so forth). (see col. 4, line 51 – col. 5, line 5);
- each bid for purchase (order) contains information regarding a financial value (price particulars) of each financial instrument requested and other information (and so forth). (see col. 4, line 51 – col. 5, line 5);
- the computerized trading system (CPU) executes bids and offers (orders). (see col. 4, line 51 – col. 5, line 5).

Kalmus does not teach underlined claim limitations - a method wherein:

- each offer for sale contains information regarding a financial value of each financial instrument and a maturity date of each financial instrument;
- each bid for purchase information regarding a financial value of each financial instrument requested and a maturity date of each financial instrument; and
- the computerized trading system matches bids and offers by matching the financial values and maturity dates of the bids and offers.

Consideration and/or submission of maturity date of each financial instrument when attempting to match and/or trade said financial instrument is old and well known in the financial management and investment transactions. For example, interest rate

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swaps are based upon the financial value (pre-determined cashflow amounts) to be paid at a maturity date (pre-specified date), as disclosed by Spence. (see p. 55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus, Bergman and Disclosed Prior Art by incorporating the submission of a financial value and maturity date of each financial instrument as both components are key to assessing the value of an interest rate swap, as disclosed by Spence, allowing the matching conducted, as disclosed by Disclosed Prior Art, to be more accurate and precise in its matching of swaps by the system through consideration of financial value and maturity dates which are key components of the financial instruments.

**Regarding Claims 65 – 66 and 85 – 86, Kalmus discloses a method wherein:**

- use of a computer as client as client computer apparatus in a computerized trading system operated to process trades in financial instruments. (see col. 3, line 55 – col. 5, line 45); and
- use of one or more computers as a trading computer apparatus in a computerized trading system operated to process trades in financial instruments. (see col. 3, line 55 – col. 5, line 45);

Prior art reference(s) do not teach underlined claim limitations – a method wherein:

- use of a personal computer as client as client computer apparatus in a computerized trading system operated to process trades in financial instruments; and



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- use of one or more servers as a trading computer apparatus in a computerized trading system operated to process trades in financial instruments. (see col. 3, line 55 – col. 5, line 45);

Utilization of personal computers and/or servers for a wide array of computation and/or processing activities is old and well known in the art of computer systems and information technology. It would have been obvious to one of ordinary skill at the time the invention was made to have modified Kalmus, Bergman, Disclosed Prior Art and Spence by incorporating the use of a personal computer, as is old and well known, for the processing of financial instruments, allowing for automation of a manual process.

**Claims 3 – 4, 7 – 8, 63 – 64, 67 – 68, 83 – 84 and 87 - 88** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman and Disclosed Prior Art as applied to Claims 1-2 above, and further in view of Stoll (Stoll, Hans R. *Microstructure of World Trading Markets*. Springer. February 1, 1993. p. 311).

**Regarding Claims 3 – 4**, Kalmus discloses a method wherein:

- the trading system computer apparatus (CPU) processes each offer and each bid (order) in the order that the offer or bid is made (real-time order inflow). (see col. 5, line 31 – 45).

Prior art reference(s) fail to teach underlined claim limitations – a method wherein:

- the trading system computer apparatus allocates to each offer and each bid a queue number allocating a priority to the offer or bid dependent on

how soon after the start of an order entry period the offer or bid is made;

and

- the trading system computer apparatus at the end of each order entry period compares bids and offers made in the order entry period by starting with the bid or offer with the earliest queue number and then comparing the bid or offer with later made bids or offers successively having reference to the queue numbers of the later made bids or offers and starting with the earliest later made bid or offer.

Utilizing a time-based priority system for processing, trading and/or matching of orders is old and well-known in the art of marketplace and auction management, as evidenced by Stoll which states "In automated double auction systems, bids and offers are submitted continuously over time... These priority rules determine the place of an incoming bid or offer in the queue of orders. Priorities can be set in terms of price, time, quantity, order type, and trader classification, among others." (see Section 1.5, p. 11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus, Bergman, Disclosed Prior Art and Spence by incorporating the use of a time-based priority system, as disclosed by Stoll, by which to match offers and bids, as disclosed by Disclosed Prior Art, at the close of a order entry time period, as disclosed by Bergman, as time priority "encourages liquidity by giving primary access to order flow to the most timely supplier of liquidity." (see section 1.5, p. 11).

**Regarding Claims 7 – 8**, Claims 7 - 8 recite similar limitations to Claims 5 - 6 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 5 – 6.

**Regarding Claims 63 – 64, 67 – 68, 83 – 84, and 87 - 88**, Claims 63 – 64, 67 – 68, 83 – 84, and 87 – 88 recite similar limitations to Claims 61 – 62, 65 – 66, 81 – 82 and 85 – 86 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 61 – 62, 65 – 66, 81 – 82 and 85 – 86.

**Claims 9 – 10, 13 – 14, 17 – 18, 69 – 70, 73 – 74, 77 - 78, 89 – 90, 93 – 94 and 97 – 98** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman, Disclosed Prior Art and Spence as applied to Claims 5 - 6 above, and further in view of Brown (Brown, David L. & Bentley, Kassandra. *Getting Started In Online Investing*. John Wiley & Son. 1999. pp. 119 – 121) and Finebaum (PG Pub 2002/0156719).

**Regarding Claims 9 – 10 and Claims 13 - 14**, prior art reference(s) do not teach underlined claim limitations – a method wherein:

- each offer for sale/bid for purchase contains information specifying whether the offer/bid must be accepted in full or whether the offer/bid can be accepted in part;
- the computerized trading system checks initially whether each offer for sale/bid for purchase can be matched in full with a bid for purchase/offer for sale and when an offer for sale/bid for purchase which can be

accepted in part cannot be matched in full then the computerized matching system will match the offer for sale with a bid for purchase/offer for sale of a lesser financial value and will calculate a remainder value; and

- the computerized trading system attempts to match the remainder value of each offer for sale/bid for purchase with remaining bids for purchase/offers for sale.

Specifying whether an offer for sale or a bid for purchase must be accepted in full or whether the offer or bid can be accepted in part is old and well known in the art of investing and sales transactions, as evidenced by Brown which discloses the entry of a "type of order" for an investment transaction specifying whether the order must be accepted in full (All or None) or in part (Partial Fill). (see p. 120). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus, Bergman, Disclosed Prior Art and Spence by incorporating the ability for the offer or bid to contain information specifying whether the order must be accepted in full or whether it can be accepted in part, as disclosed by Brown, to allow for the use of a standard and conventional order specification utilized in investments.

Matching an order in full, when possible, and/or matching an order in part and later matching the remainder of each order, when a full match is not possible, is old and well known in the art of investment and marketplace mechanics, as evidenced by Finebaum which discloses the matching of an order in full (full match) and, alternatively, matching the order in part (partial match), calculating a remainder value (face amount

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that did not trade in the 'pending state') and matching the remainder value of the order (face amount remains in pending state until...the remainder of the order is matched by the system). (see p. 20, para. 402 – 403). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to have modified Kalmus, Bergman, Disclosed Prior Art, Brown and Spence by incorporating the ability to match in full or, when not possible, in part, retaining the remainder value of the order for future matching, as disclosed by Finebaum, allowing for optimal execution of the orders, allowing for completion of orders in their entirety, when possible, and, when not, piece-meal.

**Regarding Claims 17 – 18**, Claims 17 – 18 recite similar limitations to Claims 13 – 14 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 13 – 14.

**Regarding Claims 69 – 70, 73 – 74, 77 - 78, 89 – 90, 93 – 94 and 97 – 98**, Claims 69 – 70, 73 – 74, 77 - 78, 89 – 90, 93 – 94 and 97 – 98 recite similar limitations to Claims 61 – 62, 65 – 66, 81 – 82 and 85 – 86 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 61 – 62, 65 – 66, 81 – 82 and 85 – 86.

**Claims 11 – 12, 15 – 16, 19 – 20, 71 – 72, 75 – 76, 79 – 80, 91 – 92, 95 – 96 and 99 – 100** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman, Disclosed Prior Art, Spence and Stoll as applied to Claims 7 - 8 above, and further in view of Brown and Finebaum.

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**Regarding Claims 11 – 12 and 15 - 16**, Claims 11 – 12 and 15 - 16 recite similar limitations to Claims 9 – 10 and 13 –14, respectively, and are therefore rejected using the same art and rationale as applied in the rejection of Claims 9 – 10 and 13 –14.

**Regarding Claims 19 – 20**, Claims 19 - 20 recite similar limitations to Claims 13 –14 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 13 –14.

**Regarding Claims 71 – 72, 75 – 76, 79 – 80, 91 – 92, 95 – 96 and 99 – 100**, Claims 71 – 72, 75 – 76, 79 – 80, 91 – 92, 95 – 96 and 99 – 100 recite similar limitations to Claims 61 – 62, 65 – 66, 81 – 82 and 85 – 86 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 61 – 62, 65 – 66, 81 – 82 and 85 – 86.

**Claims 21 – 22 and 25 - 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman, Disclosed Prior Art and Spence as applied to Claims 5 - 6 above, and further in view of Wiseman (US Patent 5,168,446).

**Regarding Claims 21 – 22 and 25 – 26**, Kalmus discloses a method wherein:

- an offer or a bid specifies special instructions. (see col. 5, lines 46 – 59).

Prior Art references do not teach underlined claim limitations – a method wherein:

- each trader when making an offer or a bid specifies which other traders can be considered for a matching bid or offer and the trading computer apparatus considers the identities of the traders responsible for each

potential pair of matched bid and offer and will match the pair of bid and offer only if each relevant trader has been specified as an acceptable trader by the other.

Selecting and/or choosing parties to a transactions is old and well known in the arts of investment and sales transactions, as evidenced by Wiseman which discloses a computerized trading system that considers the identities of the traders (counterparties) and will allow transactions only between traders (counterparties) specified as acceptable. (see col. 2, line 11 – col. 4, line 64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus, Bergman, Disclosed Prior Art and Spence by incorporating the ability to specify acceptable traders for a transaction and conducting transactions only between said traders, as disclosed by Wiseman, in the specification of special instructions submitted as a portion of the submitted order, as disclosed by Kalmus, to allow for development of a preferred trader network and the selecting of preferred trading partners.

**Claims 23 - 24 and 27 - 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman, Disclosed Prior Art, Spence and Stoll, as applied to 7 - 8 above, and further in view of Wiseman (US Patent 5,168,446).

**Regarding Claims 23 - 24 and 27 - 28**, Claims 23 and 27 - 28 recite similar limitations to Claims 21 – 22 and 24 – 25 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 21 – 22 and 25 – 26.

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**Claims 29 – 30, 33 – 34 and 37 – 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman, Disclosed Prior, Spence, Brown and Finebaum, as applied to Claims 9 – 10, 13 – 14 and 17 - 18 above, and further in view of Wiseman.

**Regarding Claims 29 – 30, 33 – 34 and 37 – 38**, Claims 29 – 30, 33 – 34 and 37 – 38 recite similar limitations to Claims 21 – 22 and 25 – 26 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 21 – 22 and 25 – 26.

**Claims 31 – 32, 35 – 36 and 39 - 40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman, Disclosed Prior Art, Spence, Stoll, Brown and Finebaum, as applied to Claims 11 – 12, 15 – 16 and 19 - 20 above, and further in view of Wiseman.

**Regarding Claims 31 – 32, 35 – 36 and 39 - 40**, Claims 31 – 32, 35 – 36 and 39 – 40 recite similar limitations to Claims 21 – 22 and 24 – 25 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 21 – 22 and 25 – 26.

**Claims 41 – 42 and 45 - 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman and Disclosed Prior Art, as applied to Claims 1 - 2 above, and further in view of Thau (Thau, Annette. *The Bond Book*. 2<sup>nd</sup> Edition. McGraw-Hill. November 2, 2000. pp. 146 – 147).



**Regarding Claims 41 – 42 and 45 – 46**, Kalmus discloses a method wherein:

- the trading system computer (system) makes accessible via the telecommunications network (communication path) a record of bids and offers (order executions, current quotations) made by traders within the system (see col. 5, lines 23 – 45).

Prior art references do not teach underlined claim limitations – a method wherein:

- the financial instruments traded each have a maturity date and the trading system computer apparatus makes accessible to all the traders via the telecommunications network a record of how many bids and offers have been made in total by all traders for financial instruments in a plurality of maturity periods.

Recording and/or dispersal of information to all traders (public) via a telecommunications network (Internet) related to financial instruments (bonds) having a maturity date, the volume of instruments traded and the number of trades executed is old and well known in the art of financial reporting and investment management, as evidenced by Thau. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus, Bergman and Disclosed Prior Art by incorporating a recording and/or dispersal information system, as disclosed by Thau, providing further market transparency, allowing for all traders to have access to pertinent data by which to produce and submit their own orders for execution.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus, Bergman, Disclosed Prior Art,

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Spence and Thau to allow for the recording and/or dispersal of any additional data and/or metrics that would be considered pertinent to a trader, and any organization and/or segmenting of said data that the inventor desired. *In re Kuhle*, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

**Claims 43 - 44 and 47 - 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman, Disclosed Prior Art and Stoll, as applied to Claims 3 - 4 and 7 - 8 above, and further in view of Thau.

**Regarding Claims 43 - 44 and 47 - 48**, Claims 43 - 44 and 47 - 48 recite similar limitations to Claims 41 - 42 and 45 - 46 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 41 - 42 and 45 - 46.

**Claims 49 - 50, 53 - 54 and 57 - 58** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman, Disclosed Prior, Spence, Brown and Finebaum, as applied to Claims 9 - 10, 13 - 14 and 17 - 18 above, and further in view of Thau.

**Regarding Claims 49 - 50, 53 - 54 and 57 - 58**, Claims 49 - 50, 53 - 54 and 57 - 58 recite similar limitations to Claims 41 - 42 and 45 - 46 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 41 - 42 and 45 - 46.

**Claims 51 – 52, 55 – 56 and 59 - 60** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Bergman, Disclosed Prior Art, Spence, Stoll, Brown and Finebaum, as applied to Claims 11 – 12, 15 – 16 and 19 – 20 above, and further in view of Thau.

**Regarding Claims 51 – 52, 55 – 56 and 59 - 60**, Claims 51 – 52, 55 – 56 and 59 - 60 recite similar limitations to Claims 41 – 42 and 45 – 46 and are therefore rejected using the same art and rationale as applied in the rejection of Claims 41 – 42 and 45 – 46.

### ***Response to Arguments***

Applicant's arguments filed 7/13/06 have been fully considered but they are not persuasive.

In response to applicant's argument that cited reference(s), neither alone nor in combination, discloses nor suggests each claim limitation of Claim 1, the examiner respectfully disagrees. Specifically, applicant asserts that the cited references fail to disclose "using a trading system computer apparatus to...compare all offers for sale and bids for purchase made in a single order entry period at the end of the order entry period." Examiner asserts that cited reference(s) in combination do disclose such claim limitation.

Kalmus discloses a trading system computer apparatus (see Kalmus, figure 1) that compares (processes) all offers for sale and bids for purchase (orders) in a continuous order entry period (real-time order inflow). (see Kalmus, col. 5, lines 22 –

30). However, Kalmus does not teach that the comparison occurring in a single order entry period at the end of the order entry period. Rather Kalmus, compares all offers for sale and bids for purchase in a continuous real-time fashion rather than in definitively defined order entry periods.

However, comparing offers for sale and bids for purchase in a succession of time limited, definitely defined, order periods is old and well known in the art of managing a marketplace, as stated in the previous office action. As an example of such a basic concept, examiner cited Bergman, which does refer to electricity markets, to show that organizing a marketplace into order entry periods is old and well known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kalmus by incorporating the usage of order entry periods, as disclosed by Bergman, to ensure that supply and demand are equalized in the marketplace by segmenting an otherwise continuous real-time system into more manageable time segments. Furthermore, examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made, based upon the teachings of Bergman and Official Notice, as cited in previous Office Action, to compare orders at the end of the order entry period, for the same reasons and motivation as cited above.

Applicant also asserts that the cited references fail to disclose "using a trading system computer apparatus to...to record for each order entry at least one benchmark trading rate representing a price at which transactions involving matched offers for sale and bids for purchase are executed without review of said price by traders that

submitted the matched offers for sale and bids for purchase.” However, such claim limitation has been newly introduced and was not part of original claims previously examined. Such new claim language was addressed in the prior art rejection cited above.

The claim limitation as previously presented was “using a trading system computer apparatus to...to record for each order entry at least one benchmark trading rate.” In the previous Office Action, Examiner asserted that it was old and well known to record information related to a trade, transaction and/or sale in the art of sales and investment transaction. Examiner cited Spence, a reference dealing with interest rate SWAPs, as Spence disclosed that the components of a SWAP contract would be indexed to an “agreed reference benchmark.” (see Spence, p. 55). Examiner asserts that as claim language was originally presented that prior art references, in combination, disclosed the recording for each order entry a benchmark trading rate.

Applicant attempts to differentiate Spence from the instant application through asserting that the “agreed reference benchmark” of Spence refers to the SWAP’s variable rate while the claim language of “benchmark trading rate” which is the SWAP’s fixed rate. However, such a definition was not articulated within the original claim language and the examiner utilized the “broadest reasonable interpretation consistent with the specification during the examination of a patent application since the applicant may then amend his claims.” See *In re Prater and Wei*, 162 USPQ 541, 550 (CCPA 1969). Furthermore, the claim language of Claim 1 makes no reference to SWAPs nor

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interest rates but merely states that the benchmark trading rate is associated with "financial instruments," a much more broad term than a SWAP's fixed rate.

Applicant asserts that there would not have been obvious to one of ordinary skill in the art to have modified prior art references, as asserted by Examiner in previous Office Action, as Bergman concerns electricity trading while Spence deals with interest rate SWAPs. Examiner asserts that Bergman was brought in solely to demonstrate old and well known practices in marketplace operations and auction management, specifically the operation of a marketplace through a succession of periods during which orders are submitted. Such practices are old and well known in the operation of marketplaces and auctions, in general, and are not limited to the functioning of electricity markets. Therefore, examiner asserts it would have been obvious to one of ordinary skill to have incorporated the teachings of Bergman, relating to succession of order entry periods, and the teachings of Spence, relating to the financial trading benchmark, into a system that trades financial instruments.

Finally, the examiner would like to point out that Official Notice statement(s) were used in the office action mailed on 1/13/06 to indicate that certain concept(s), technology(s) and/or methodology(s) are old and well known in the art. Since applicant has not attempted to traverse such Official Notice statement(s), examiner is taking the asserted common knowledge and/or well-known statement to be admitted prior art.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Borlinghaus whose telephone number is (571) 272-6924. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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ELLA COLBERT  
PRIMARY EXAMINER